GUARANTEE

We, Applied Energy Products Limited, guarantee this product for the period of 36 months from the date of purchase

Within the guarantee period we will resolve, **free of charge,** any manufacturing defects in the product resulting from faulty workmanship or material on condition that:-

a) The appliance has been correctly installed in accordance with our instructions and is being used on the supply circuit or voltage printed on the rating plate.

b) The appliance has been used in accordance with these instructions and has not been tampered with or otherwise subject to misuse, neglect or accident.

c) The appliance has not been taken apart, modified or repaired except by a person authorised by us.

d) Evidence of the date of purchase in the form of an invoice or receipt will be required in order to qualify for an in-guarantee repair.

e) For the service work to be undertaken free of charge, the work must be only undertaken by Applied Energy Products Limited, or our approved agents.

f) Service under guarantee has no effect on the expiry date. The guarantee on any exchanged parts or product ends when the original guarantee period ends.

EXCLUSIONS

This guarantee **DOES NOT** cover damage or defects arising from poor or incorrect installation, improper use or lack of maintenance, including the build-up of limescale. It is the responsibilty of the installer to check that the installation parameters meet the requirements of the product, and any relevant regulations.

If we are called out to a fault, which is subsequently identified as being an installation fault, we will make a charge. It is important that the routine checks are completed before calling us out, as many issues can be simply diagnosed and resolved.

We make no guarantees as to response times for repairs. We will endeavour to achieve the most timely response possible but while we indicate an average response time, this should not be taken as a guarantee.

The guarantee applies to a repair or replacement (at our discretion) of the product subject to the conditions above, and **DOES NOT** cover compensation for the loss of the product or consequential loss of any kind.

The guarantee does not apply to the repair or replacement of pressure relief devices, sprayheads, hoses, accessories, isolating switches, electrical cable, fuses and/or circuit breakers.

This guarantee does not affect your statutory rights.

APPLIED ENERGY PRODUCTS LIMITED
MORLEY WAY, PETERBOROUGH PE2 9JJ
TEL +44 (0) 844 372 7750 / FAX: +44 (0) 844 372 7760
Website: www.redring.co.uk

(A4 Leaflet No. 578.2092.03b)

CONTOUR 7000 SERIES Vented (Open Outlet) Water Storage Heater Installation/User Instructions

Contents

CONTOUR 7000 STANDARD MODELS **Page**

Introduction and Operating Instructions 2
Installation Instructions
- Fixing 2
- Plumbing (Over and Undersink) 2
- Electrical 3

Commissioning 3
Draining the Tank 3
Recommended Accessories. 7

CONTOUR 7000 REMOTE MODELS WITH AIR SWITCH AND REMOTE SWIVEL SPOUT

Introduction and Operating Instructions 4
Installation Instructions
- Fixing 5
- Plumbing (Over and Undersink) 5
- Electrical 6

Commissioning 6
Draining the Tank 7
Recommended Accessories. 7

GENERAL

Fault Diagnosis (Self Help) 7
Technical Data Summary 7
Routine Maintenance 7
After Sales Service 7
Guarantee 8

ATTENTION CONTOUR 7000 REMOTE

THIS MODEL IS SUPPLIED COMPLETE WITH VENTED OUTLET ARM.

TAPS OR ANY OTHER OUTLET **MUST NOT** BE FITTED TO THIS MODEL UNLESS RECOMMENDED BY REDRING

This appliance is not intended for use by persons (including children and the infirm) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

Contour 7000 Standard Models

These instructions should be read in full before commencing the installation.
We recommend that the installation should only carried out by a suitably qualified person.

The Redring Contour 7000 is **an open-outlet**, thermal Storage water heater for use with Redring recommended fittings **for one outlet only**.
It operates on the displacement principle ie: when cold water is admitted into the bottom of the tank, hot water flows out through the outlet.
There are two models: 3kW, which ensures a rapid reheating of the water and a 1kW unit to suit special electrical requirements.

In addition to the thermostat which controls the temperature of the water in normal use, a safety cut-out is fitted in the form of a thermal fuse. This switches off the electricity to the heater when it senses an abnormally high temperature eg. if the unit is run without water. Replacement thermal fuses can be obtained.

Operating Instructions

If the heater is used regularly it is recommended that it is left on at all times, the thick insulation ensures economic running costs. The water is turned on and off via the water control tap.

Setting the temperature

The four settings indicated by the thermostat are:-

●●● This gives very hot water, which can be mixed with cold water to produce quantities of usable water greater than the actual capacity of the heater.

●● This setting will deliver, direct water suitable for washing up.

● This setting will deliver, direct, water suitable for hand washing.

❄ This setting will maintain the water in the heater just above freezing point if the heater is to be left unattended whilst subject to freezing conditions. The electricity must be left on for this facility.

Water expands when heated, thus during the initial heating of cold water admitted to the heater, drips from the outlet spout may occur.

If it is required that the adjustment of the thermostat is not available to the user of the heater, then after first establishing that the temperature is as required, the control cover can be locked off using the locking screw provided.

Installation Instructions

REMOVING THE FRONT COVER

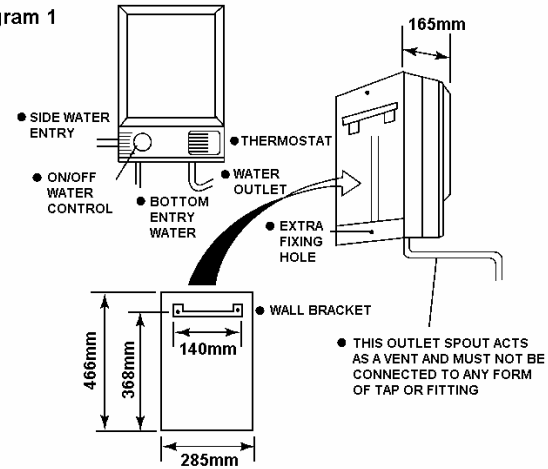
1. Remove the thermostat fixing screw and cover.
2. Remove the thermostat knob by pulling forward, ensuring that **the thermostat is set to minimum.**
3. Release front cover by unscrewing the three fixing screws.
4. Lift the cover away to give access to plumbing and electrical connections.

FIXING

The wall bracket should be securely fixed in position (see diagram 1).
The heater is then hung on the wall bracket. Further security can be obtained by marking the position of the extra fixing hole (see diagram 1) and applying appropriate wall fixing to this position.

When the unit is used above the sink with the spout supplied, it is recommended that this extra fixing position is used.
The bottom of the heater should be approximately 250mm above the top of the sink. Longer length swivel outlet arms are available where required (see page 7 "accessories").
The outlet should be at least 13mm above the maximum possible water level for any appliance that is to be filled from the heater.

Diagram 1

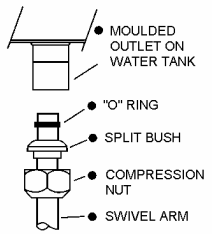


PLUMBING

(See diagram 5 for suggested installation plans).

The cold water connection is made directly to the 15mm compression fitting of the cold water inlet elbow.
Before final assembly, ensure that the correct inlet water pressure restrictor is fitted (see page 3 table A).
The inlet elbow can be rotated through 90° to give side water entry (see diagram 1) if required. Flats are moulded on the inlet elbow to ease assembly.
"Knock-Out" sections are included to give the neatest possible installation.
Should it be necessary to remove the unit for servicing, the larger diameter hole requires removal to allow withdrawal of the pipework, nut and olive.
Fit the swivel outlet arm to the outlet of the water tank (as shown in diagram 2).
Taking extreme care not to cross thread the moulded outlet connection.

Diagram 2



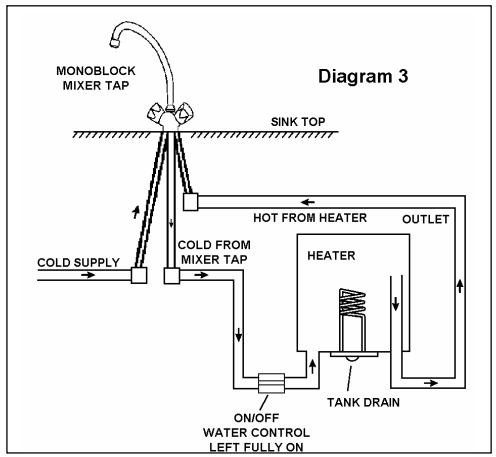
SWIVEL OUTLET CONNECTION

It is recommended that a WRAS (Water Regulations Advisory Scheme) listed isolating valve is fitted between the rising main and the unit. This will allow the unit to be serviced or exchanged without having to turn off the water at the water stop valve.

REMOTE

If the unit is to be used mounted below sink level it should be connected to the special open outlet Monoblock Mixer Tap recommended by Redring (see diagram 3).
The cold inlet connection to the heater is made with a compression fitting.
The on/off water control should be left fully on.
The economic performance of the heater will be enhanced by lagging the hot water pipe from the heater to the outlet.

Diagram 3



Draining the Tank – Remote Models

1. The heater must be disconnected from the electrical supply before commencing the operation.
2. Obtain a suitable vessel in which to catch the water (approximately 7 litres).
3. Unscrew the drain plug in the element plate.
4. Ensure the heater is dried off after draining.
5. Replace the drain screw (and washer if necessary) after draining.
6. Set the thermostat to minimum setting.
7. Switch on power supply.
8. Refill with water and check for leaks.
9. Reset thermostat to required setting.

Fault Diagnosis

If the appliance fails to perform satisfactorily make the following first aid checks.

1. Check that the mains supply fuses are not blown and that the mains supply is switched on
2. Check that the cold water supply is on.
3. Check that the outlet has not been blocked in any way.
4. Check that the flexible air pipe is connected and not blocked or kinked (Contour 7000 Remote Only).
5. Check thermal fuse has not blown.

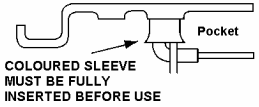
If the fault persists:-

Contact the dealer from whom you purchased the appliance or the installation engineer.

THERMAL FUSE REPLACEMENT:

If the water remains cold when the heater id turned on (with the thermostat set above ambient) the thermal fuse may have operated. Have this checked by a qualified person and ask them to check the reason ie: water starvation.

Spare thermal fuses are Redring Part No.
94-784203 on model 44-784001/02
94-784217 on model 44-784020/21
Thermal Fuse Rated at 128°C



WARNING
DO NOT:-

- **BYPASS THE THERMAL FUSE**
- **RUN WITHOUT A THERMAL FUSE**
- **USE ANY OTHER THERMAL FUSE**

NOTE: The fuse assembly is inserted straight into the pocket by holding the two wires parallel. It is correctly positioned when the coloured sleeve is fully inserted into the pocket.

Additional note to Redring "Contour 7000" Handbook

A possible reason for the thermal fuse to blow is lack of water in the tank. This can occur either during initial commissioning or as a result of a subsequent water supply interruption allowing a "back siphonage" of water out of the tank. If the latter is likely to happen in your area, we recommend that a "single water check valve" be fitted.

Technical Data Summary

Capacity	-	7 litres
Loading	-	Heaters available in 3kW and 1kW ratings
Supply	-	240-230V single phase supply
Fuse Rating	-	3kW – 13 Amp / 1kW – 5 Amp
Safety	-	Thermal fuse for over temperature protection
Maximum Water Pressure	-	690kPa (100 psi / 6.9 bar)

Routine Maintenance – All models

Cleaning: Do not use an abrasive cleaner as this will damage the gloss surfaces of the heater.

Redring After Sales Service

We offer a technical advisory service on the telephone to contractors and other customers with problems in the field.

RING 0844 372 7766 / FAX 0844 372 7767

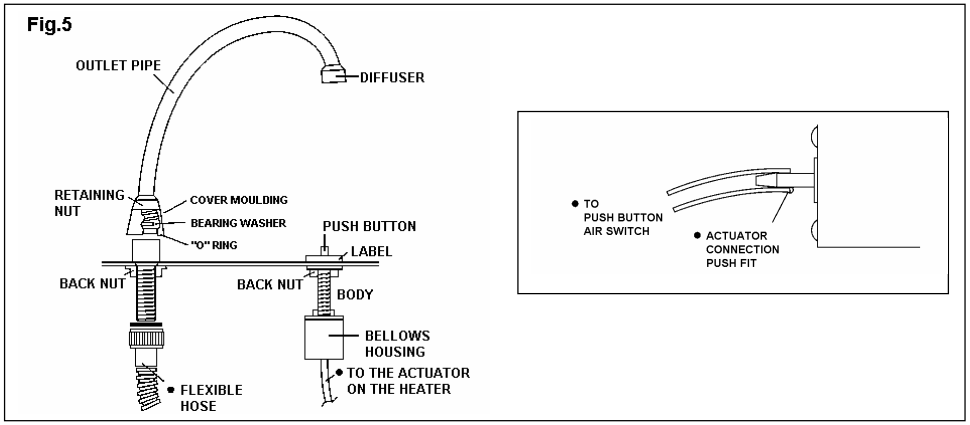
Remember to quote the exact type of unit, as written on the unit front and on this leaflet.
It may also be of use to have a note of the model and serial number as stated on the underside of the unit.

Recommended Accessories

"Standard Accessories"	**Cat No.**
Swivel Arm (450mm long)	84-780404
Swivel Arm (600mm long)	84-780405
"Remote Accessories"	**Cat No.**
Monoblock Mixer Tap	84-780408

Spare parts and accessories can be supplied from Redring Sales Hotline 0844 372 7750

Outlet Pipe and Air Switch Assembly



Electrical Connection

The installation must be in accordance with the current BS.7671 (IEE Wiring Regulations) and/or local regulation s, and "Part P" of the Building Regulations.

1. The heater is suitable for 240-230V single phase A.C supply.
2. The live (brown) and neutral (blue) wires must be connected to the designated positions in the terminal block and the earth (green/yellow) to the earth ⏚ position.
3. **WARNING:**
   THIS APPLIANCE MUST BE EARTHED
4. The mains cable should be prepared as shown (see figure 8)
5. A means for disconnection in all poles must be incorporated in the fixed wiring in accordance with the wiring rules.
6. The cable should be heat resisting 3-Core flexible PVC of 0.75mm² for the 1kW model and 1.25mm² minimum for the 3kW model.
7. **NOTE – THE APPLIANCE MUST BE FILLED WITH WATER BEFORE POWER IS SWITCHED ON.**
   FAILURE TO DO THIS WILL CAUSE THE THERMAL FUSE TO OPERATE AND COULD CAUSE PERMANENT DAMAGE TO THE ELEMENT.

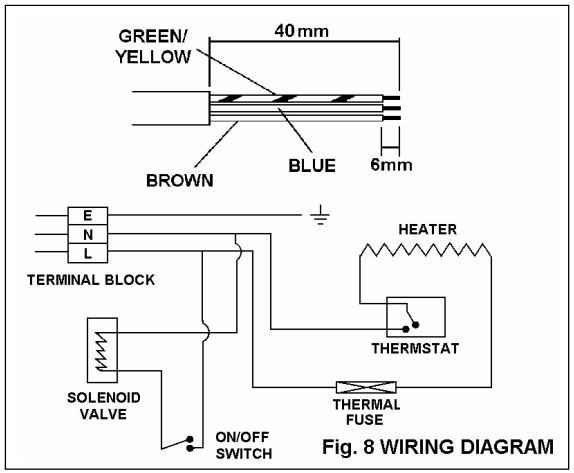


Fig. 8 WIRING DIAGRAM

Commissioning – Remote Models

1. Set the thermostat to minimum " " (as far anti-clockwise as possible).
2. Switch on water at isolating valve.
3. Switch on electricity.
4. If water does not flow in 2 minutes, push button.
5. When water flows push button again to switch off.
6. Check that the water flow through the heater is correct and that the correct restrictor has been fitted (if required) as specified on Table "A" page 5.
7. Examine for water leaks.
8. Fit cover and set thermostat ensuring alignment of knob "D" shaped shaft and spindle.
9. Demonstrate to the user **and ensure that this booklet is left with them.**

Standard Installation

IMPORTANT
To ensure correct operation of this vented, open outlet water heater the flow rate/water pressure must be limited.
On SITE WATER PRESSURE must be assessed and the correct restrictor fitted.
IF IN DOUBT CHECK THAT THE FLOW RATE THROUGH THE HEATER IS 4 LITRES/MINUTE.
RESTRICTOR No.2 is pre-assembled into the end of the inlet elbow (oversink models only) and is easily replaced should restrictor No.1, 3, or 4 be required.
The correct restrictor will ensure that the flow rate of water through the heater is at an optimum to prevent undue mixing of the incoming cold water with stored hot water.

TABLE A

SUPPLY PRESSURE kPa	(psi / bar)	RESTRICTOR
690 - 345	(100 - 50 / 6.9 - 3.5)	1
345 - 207	(50 -30 / 3.5 - 2.1)	2
207 - 117	(30 - 17 / 2.1 - 0.69)	3
117 - 69	(17 - 10 / 2.1 - 0.69)	4
69 or less	(10 or less / 0.69 or less)	NONE

Electrical Connection

The installation must be in accordance with the current BS.7671 (IE E Wiring Regulations) and/or local regulations, and "Part P" of the Building Regulations.

1. The heater is suitable for 240-230V single phase A.C supply.
2. The live (brown) and neutral (blue) wires must be connected to the designated positions in the termina l block and the earth (green/yellow) to the earth ⏚ position.
3. The mains cable should be prepared as shown (see diagram 4)
4. **WARNING: THIS APPLIANCE MUST BE EARTHED**
5. A means for disconnection in all poles must be incorporated in the fixed wiring in accordance with the wiring rules.
6. The cable should be heat resisting 3-Core flexible PVC of 0.75mm² for the 1kW model and 1.25mm² minimum for the 3kW model.
7. **NOTE – THE APPLIANCE MUST BE FILLED WITH WATER BEFORE POWER IS SWITCHED ON. FAILURE TO DO THIS WILL CAUSE THE THERMAL FUSE TO OPERATE AND COULD CAUSE PERMANENT DAMAGE TO THE ELEMENT.**

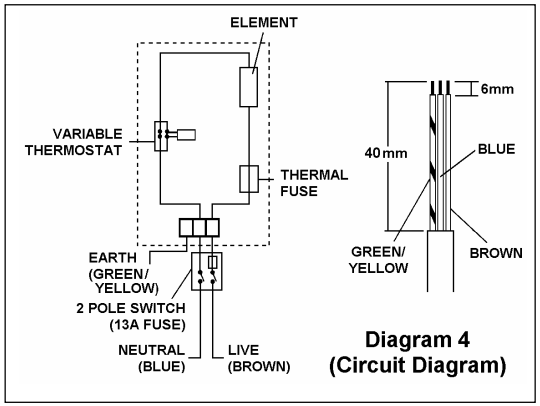


Diagram 4 (Circuit Diagram)

Commissioning - Standard Models

1. Fill the unit with water via the on/off water tap. Water will run out of the swivel arm when full.
2. Check that the water flow through the heater is correct and that the correct restrictor has been fitted (if required) as specified on Table "A" page.3.
3. Examine for water leaks
4. Refit the front cover ensuring alignment of the on/off control knob to the square valve adaptor.
5. Replace the thermostat knob ensuring alignment of the "D" shaped shaft and spindle.
6. Set the thermostat to minimum setting (as far anti-clockwise as possible).
7. Switch on electricity.
8. Set the thermostat to required setting
9. Demonstrate to the user and **ensure that this booklet is left with them**.

Draining the Tank

1. The heater must be disconnected from the electrical supply before commencing the operation.
2. Obtain a suitable vessel in which to catch the water (approximately 7 litres).
3. Unscrew the drain plug in the element plate as shown in diagram 3.
4. Ensure the heater is dried off after draining.
5. Replace the drain screw (and washer if necessary) after draining.
6. Re-fill the water and check for leaks.
7. Set thermostat to minimum.
8. Switch on power supply.
9. Reset thermostat to required setting.

Suggested Installation Plans for Redring Contour 7000

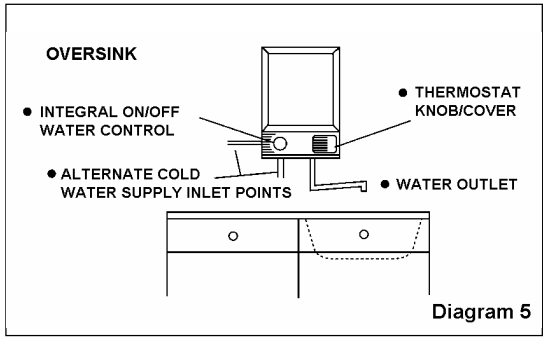
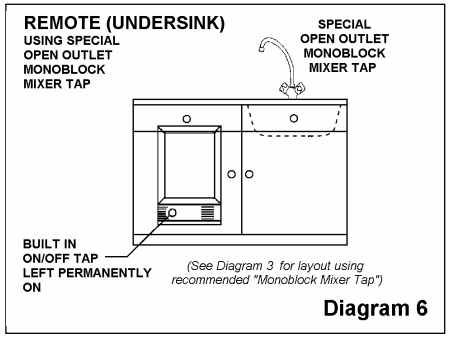


Diagram 5


REMOTE (UNDERSINK)
USING SPECIAL OPEN OUTLET MONOBLOCK MIXER TAP
SPECIAL OPEN OUTLET MONOBLOCK MIXER TAP
BUILT IN ON/OFF TAP LEFT PERMANENTLY ON
(See Diagram 3 for layout using recommended "Monoblock Mixer Tap")
Diagram 6

Contour 7000 Remote Models

These instructions should be read in full before commencing the installation.
We recommend that the installation should only carried out by a suitably qualified person.

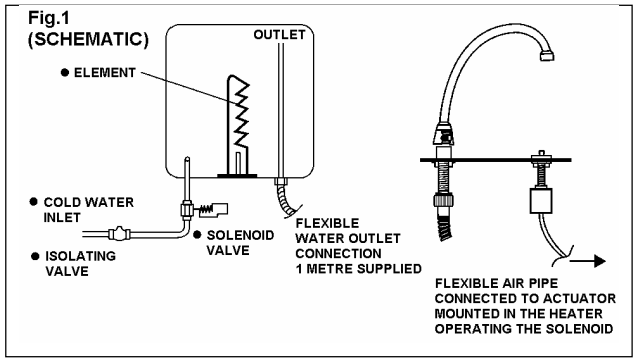
The Redring Contour 7000 Remote Model is **an open-outlet water** storage heater. It stores hot water at a set temperature. The hot water is drawn off through the open outlet pipe by allowing cold water from the mains to flow into the bottom of the heater. The cold water at the bottom displaces hot water from the top.

The cold water inlet is controlled by a solenoid valve, which is actuated pneumatically from a push button. This push button can be mounted in a variety of positions (see Fig.1).

The hot water is stored in a plastic container which is insulated with foam. The insulation is so effective that the (standing) heat loss from the hot water is negligible.

In addition to the thermostat which controls the temperature of the water in normal use, a safety cut-out is fitted in the form of a thermal fuse. This switches off the electricity to the heater when it senses an abnormally high temperature eg. if the unit is run without water. Replacement thermal fuses can be obtained.

Water expands when heated, thus during the initial heating of cold water admitted to the heater drips from the outlet spout may occur.



Operating Instructions

If the heater is used regularly it is recommended that it is left on at all times, the thick insulation ensures economic running costs. The water is turned on and off with the push button.

Setting the temperature – Remote Models

The four settings indicated by the thermostat are:-

- ●●● This gives very hot water, which can be mixed with cold water to produce quantities of usable water greater than the actual capacity of the heater.
- ●● This setting will deliver, direct water suitable for washing up.
- ● This setting will deliver, direct, water suitable for hand washing.
- This setting will maintain the water in the heater just above freezing point if the heater is to be left unattended whilst subject to freezing conditions. The electricity must be left on for this facility. **IMPORTANT** (see commissioning Page 6).

If it is required that after initial setting of the thermostat adjustment is not available to other users of the heater, then after first establishing that the temperature is as required, the control cover can be locked off using the lockin g screw provided.

Suggested Installation Plans - Remote Models

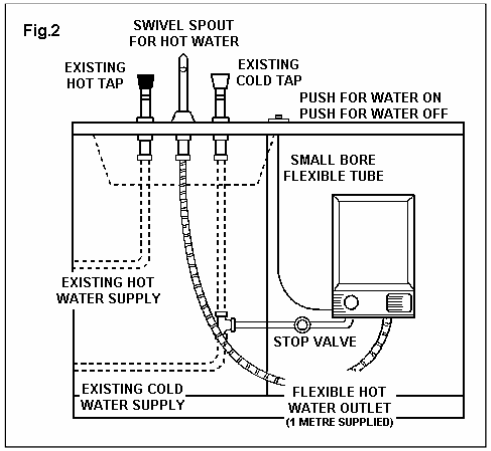
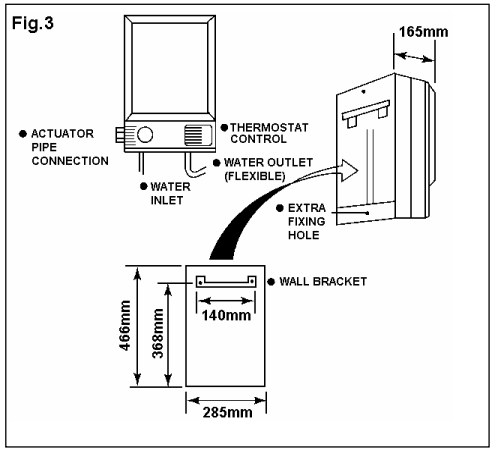


Fig.2
SWIVEL SPOUT FOR HOT WATER
EXISTING HOT TAP
EXISTING COLD TAP
PUSH FOR WATER ON PUSH FOR WATER OFF
SMALL BORE FLEXIBLE TUBE
EXISTING HOT WATER SUPPLY
STOP VALVE
EXISTING COLD WATER SUPPLY
FLEXIBLE HOT WATER OUTLET (1 METRE SUPPLIED)



Installation Instructions

REMOVING THE FRONT COVER

1. Remove the thermostat fixing screw and cover.
2. Remove the thermostat knob by pulling forward, ensuring that **the thermostat is set to minimum.**
3. Release front cover by unscrewing the three fixing screws.
4. Lift the cover away to give access to plumbing and electrical connections.

FIXING

The heater can be fitted in any convenient position under a sink, as the outlet connection is flexible.
The unit should be positioned so as to gain easy access to the mains cold water supply.
Leave space underneath for servicing (see Fig.2).
A 2 metre long flexible hot water outlet hose is available to meet site requirements (Catalogue No. 83-595310).

The wall bracket should be securely fixed in position.
The heater is then hung on the wall bracket. Further security can be obtained by marking the position of the extra fixing hole (see Fig.3) and applying appropriate wall fixing to this position.

PLUMBING

It is recommended that the cold water connection to the unit is made using 15mm outside diameter tubing, either copper to BS.2871 or stainless to BS.4127.

It is recommended that a WRAS (Water Regulations Advisory Scheme) listed isolating valv e is fitted between the rising main and the unit. This will allow the unit to be serviced or exchanged without having to turn off the water at the water stop valve.

Before final assembly of the cold water inlet the appropriate restrictor insert should be selected and fitted into the end of the inlet adaptor on the heater (see page 5 table A).
The correct insert will ensure that the flow rate of water through the heater is at an optimum to prevent undue mixing of the incoming cold water with the stored hot water.

TABLE A

SUPPLY PRESSURE kPa	SUPPLY PRESSURE (psi / bar)	RESTRICTOR
690 - 345	(100 - 50 / 6.9 - 3.5)	1
345 - 207	(50 -30 / 3.5 - 2.1)	2
207 - 117	(30 - 17 / 2.1 - 0.69)	3
117 - 69	(17 - 10 / 2.1 - 0.69)	4
69 or less	(10 or less / 0.69 or less)	NONE

The push button actuator can be fitted in any convenient position by drilling one 17mm diameter hole (21/32").
Before drilling this position, ensure there is sufficient clearance for the bellows housing.
The bellows housing (see Fig.5), can be removed from the push-button body, the body can then be positioned into the hole and locked using the back-nut supplied. Do not over tighten the back-nut on push-button, finger tighten only.
The bellows housing should then be replaced and connected to the heater using the flexible tube supplied (see Fig.1, Fig.2 and Fig.5). Arrange the run of the flexible air pipe to avoid kinks and other interference. Use the cable ties provided.

The special swivel outlet supplied can be fitted in any convenient position over the sink by drilling one 21mm diameter hole (27/32"). The complete outlet union can be dropped through the hole and tightly secured by the back-nut (see Fig.5). The connection from the outlet to the heater is flexible to simplify plumbing in confined spaces.
WARNING - Do not fit any form of outlet not supplied by the manufacturer.